

# SCENIC DRIVE WATER ASSOCIATION (PWS 3230023) SOURCE WATER ASSESSMENT FINAL REPORT

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October 13, 2000



## State of Idaho Department of Environmental Quality

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## Executive Summary

Under the Safe Drinking Water Act Amendments of 1996, all states are required by the U.S. Environmental Protection Agency to assess every source of public drinking water for its relative sensitivity to contaminants regulated by the act. This assessment is based on a land use inventory of this designated assessment area, sensitivity factors associated with the wells, and aquifer characteristics.

This report, *Source Water Assessment for Scenic Drive Water Association, Emmett, Idaho*, describes the public drinking water system, the boundaries of the zones of water contribution, and the associated potential contaminant sources located within these boundaries. This assessment should be used as a planning tool, taken into account with local knowledge and concerns, to develop and implement appropriate protection measures for this source. **The results should not be used as an absolute measure of risk and they should not be used to undermine public confidence in the water system.**

The Scenic Drive Water Association drinking water system consists of two wells. The July, 1998 well #2 water test showed a level of nitrate (9.31 mg/l) that approaches the drinking water Maximum Contaminant Level for nitrate (10 mg/l). Well #1 has had no significant water chemistry problems. In terms of total susceptibility, the Scenic Drive Water Association wells rate moderate for all categories of potential contaminants.

This assessment should be used as a basis for determining appropriate new protection measures or re-evaluating existing protection efforts. No matter what ranking a source receives, protection is always important. Whether the source is currently located in a “pristine” area or an area with numerous industrial and/or agricultural land uses that require education and surveillance, the way to ensure good water quality in the future is to act now to protect valuable water supply resources.

For Scenic Drive Water Association, source water protection activities should focus on implementation of practices aimed at reducing the leaching of agricultural chemicals from agricultural land within the designated source water areas. Most of the designated areas are outside the direct jurisdiction of the Scenic Drive Water Association. Partnerships with state and local agencies and industry groups should be established and are critical to success. Due to the time involved with the movement of ground water, source water protection activities should be aimed at long-term management strategies even though these strategies may not yield results in the near term. Source water protection activities for agriculture should be coordinated with the Idaho State Department of Agriculture, the Soil Conservation Commission and Gem Soil and Water Conservation District, and the Natural Resources Conservation Service.

A community with a fully developed source water protection program will incorporate many strategies. For assistance in developing protection strategies please contact the Boise Regional Office of the Idaho Department of Environmental Quality or the Idaho Rural Water Association.

# **SOURCE WATER ASSESSMENT FOR SCENIC DRIVE WATER ASSOCIATION, EMMETT, IDAHO**

## **Section 1. Introduction - Basis for Assessment**

The following sections contain information necessary to understand how and why this assessment was conducted. **It is important to review this information to understand what the ranking of this source means.** A map showing the delineated source water assessment area and the inventory of significant potential sources of contamination identified within that area are attached. The list of significant potential contaminant source categories and their rankings used to develop this assessment is also attached.

### **Level of Accuracy and Purpose of the Assessment**

The Idaho Department of Environmental Quality (DEQ) is required by the U.S. Environmental Protection Agency (EPA) to assess the over 2,900 public drinking water sources in Idaho for their relative susceptibility to contaminants regulated by the Safe Drinking Water Act. This assessment is based on a land use inventory of the delineated assessment area, sensitivity factors associated with the wells, and aquifer characteristics. All assessments must be completed by May of 2003. The resources and time available to accomplish assessments are limited. Therefore, an in-depth, site-specific investigation to identify each significant potential source of contamination for every public water system is not possible. **Therefore, this assessment should be used as a planning tool, taken into account with local knowledge and concerns, to develop and implement appropriate protection measures for this source. The results should not be used as an absolute measure of risk and they should not be used to undermine public confidence in the water system.**

The ultimate goal of the assessment is to provide data to local communities to develop a protection strategy for their drinking water supply system. DEQ recognizes that pollution prevention activities generally require less time and money to implement than treatment of a public water supply system once it has been contaminated. DEQ encourages communities to balance resource protection with economic growth and development. The decision as to the amount and types of information necessary to develop a source water protection program should be determined by the local community based on its own needs and limitations. Wellhead or source water protection is one facet of a comprehensive growth plan, and it can complement ongoing local planning efforts.

## **Section 2. Conducting the Assessment**

### **General Description of the Source Water Quality**

Scenic Drive Water Association, Idaho is a community of approximately 60 people with 21 connections, located in Gem County, north of the city of Emmett, on the Emmett Bench ½ mile north of the intersection of North Washington and West Idaho (Figure 1). The public drinking water system for Scenic Drive Water Association is comprised of two wells.

The primary water quality issue currently facing Scenic Drive Water Association is that of nitrate contamination and possible synthetic organic chemical (SOC) contamination from the pesticides Atrazine and Alachlor and the problems associated with managing this contamination. In recent years, well #2 has approached the drinking water Maximum Contaminant Level (MCL) for nitrate.

### **Defining the Zones of Contribution - Delineation**

The delineation process establishes the physical area around a well that will become the focal point of the assessment. The process includes mapping the boundaries of the zone of contribution into time of travel zones (zones indicating the number of years necessary for a particle of water to reach a well) for water in the aquifer. DEQ used a refined computer model approved by EPA in determining the 3-year (Zone 1B), 6-year (Zone 2), and 10-year (Zone 3) time-of-travel (TOT) for water associated with the Payette Valley aquifer in the vicinity of the Scenic Drive Water Association. The computer model used site specific data, assimilated by DEQ from a variety of sources including Scenic Drive Water Association well logs and other local well logs. The delineated source water assessment area for Scenic Drive Water Association can best be described as a corridor ¼ mile wide and 1 ½ miles long extending north-northeast to the North Side Main Canyon Canal. The actual data used by DEQ in determining the source water assessment delineation areas are available upon request.

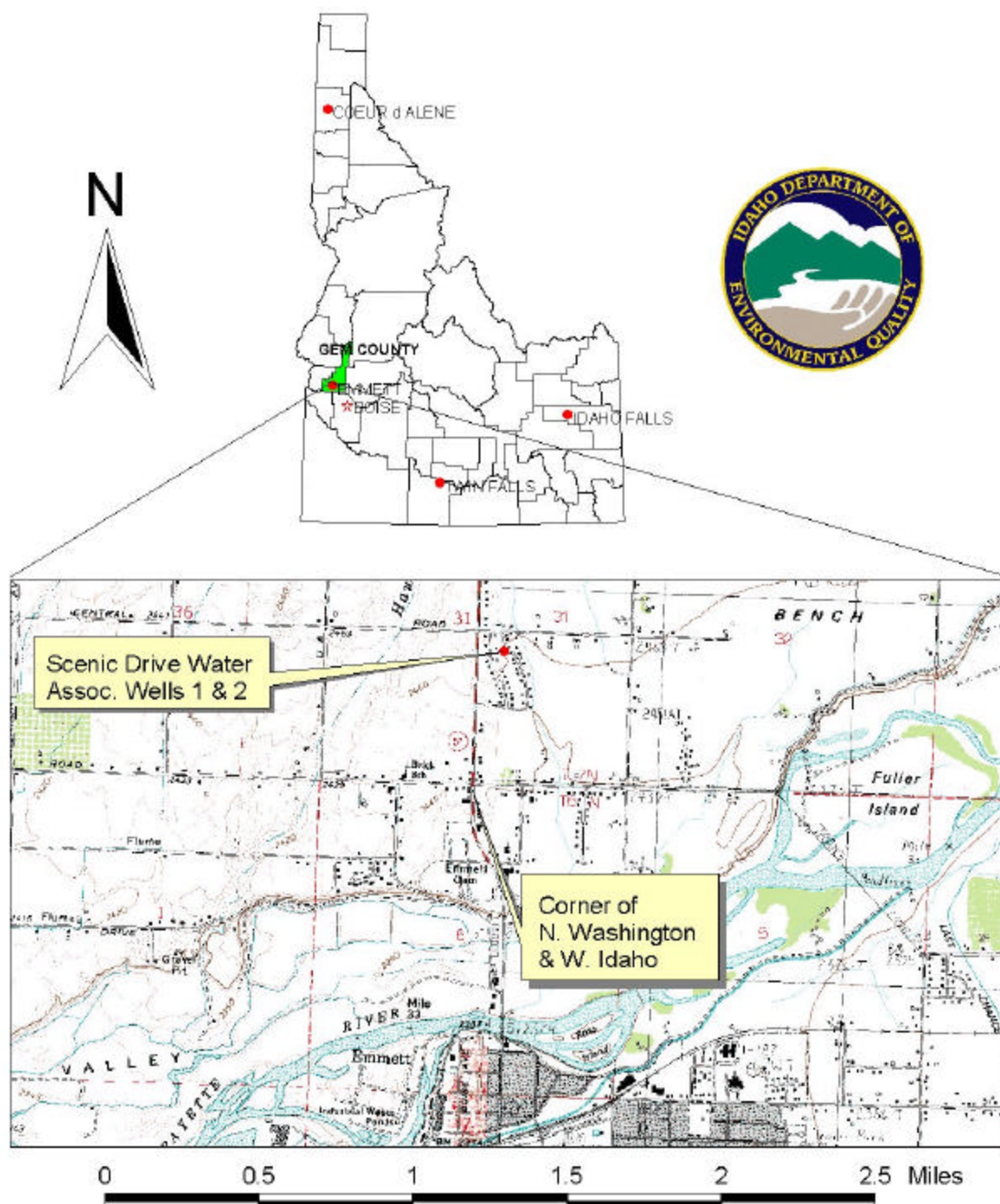
### **Identifying Potential Sources of Contamination**

A potential source of contamination is defined as any facility or activity that stores, uses, or produces, as a product or by-product, the contaminants regulated under the Safe Drinking Water Act and has a sufficient likelihood of releasing such contaminants at levels that could pose a concern relative to drinking water sources.

The goal of the inventory process is to locate and describe those facilities, land uses, and environmental conditions that are potential sources of ground water contamination. The locations of potential sources of contamination within the delineation areas were obtained by field surveys conducted by DEQ and from available databases.

The dominant land use outside the subdivision of the Scenic Drive Water Association is irrigated cropland. Land use within the immediate area of the wellhead consists of residential homes.

**Figure 1. Geographic Location of  
Scenic Drive Water Association Wells 1 & 2**



It is important to understand that a release may never occur from a potential source of contamination provided best management practices are used at the facility. Many potential sources of contamination are regulated at the federal level, state level, or both to reduce the risk of release. Therefore, when a business, facility, or property is identified as a potential contaminant source, this should not be interpreted to mean that this business, facility, or property is in violation of any local, state, or federal environmental law or regulation. What it does mean is that the potential for contamination exists due to the nature of the business, industry, or operation. There are a number of methods that water systems can use to work cooperatively with potential sources of contamination, such as educational visits and inspections of stored materials. Many owners of such facilities may not even be aware that they are located near a public water supply well.

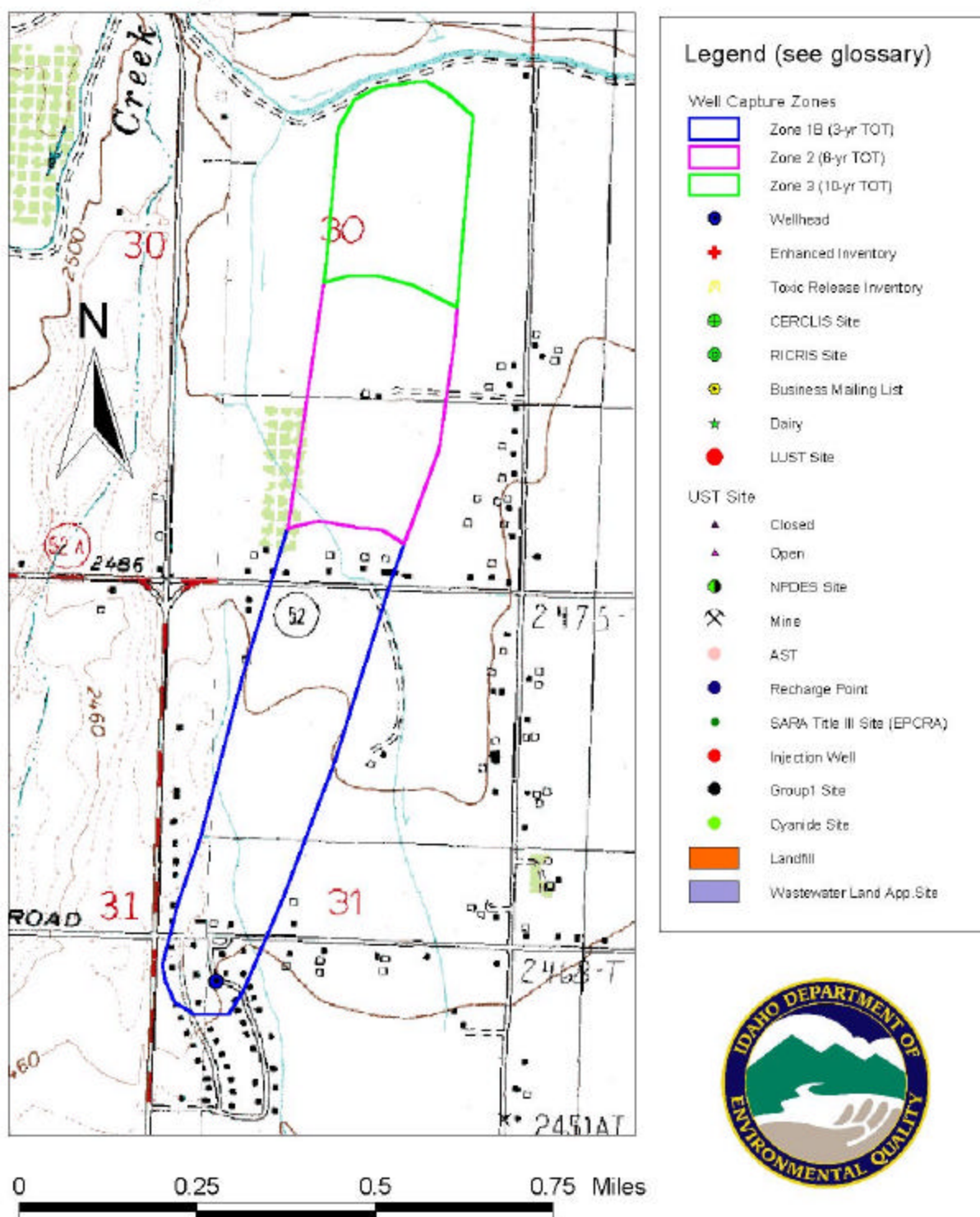
### **Contaminant Source Inventory Process**

A two-phased contaminant inventory of the study area was conducted during May of 2000. The first phase involved identifying and documenting potential contaminant sources within the Scenic Drive Water Association Source Water Assessment Area through the use of computer databases and Geographic Information System maps developed by DEQ. The second, or enhanced, phase of the contaminant inventory involved contacting the operator to validate the sources identified in phase one and to add any additional potential sources in the area. This task was undertaken with the assistance of Mike and Peggy Irving.

No potential contaminant sites are located within the delineated source water area (Figure 2). Contaminants of concern are primarily related to the organic priority area for the pesticides Atrazine and Alachlor associated with the irrigated agriculture land use of the area.



**Figure 2. Scenic Drive Water Association Wells 1 & 2  
Delineation Map and Potential Contaminant Locations**



### **Section 3. Susceptibility Analyses**

The water system's susceptibility to contamination was ranked as high, moderate, or low risk according to the following considerations: hydrologic characteristics, physical integrity of the well, land use characteristics, and potentially significant contaminant sources. The susceptibility rankings are specific to a particular potential contaminant or category of contaminants. Therefore, a high susceptibility rating relative to one potential contaminant does not mean that the water system is at the same risk for all other potential contaminants. The relative ranking that is derived for each well is a qualitative, screening-level step that, in many cases, uses generalized assumptions and best professional judgement. The following summaries describe the rationale for the susceptibility ranking.

#### **Hydrologic Sensitivity**

Hydrologic sensitivity was low for well #1 and moderate for wells #2 (see Table 1). This reflects the nature of the soils being in the poor to moderate drainage class and the presence of sandy clay, brown clay, and blue shale layers that retard the movement of contaminants from the surface to the aquifer. For well #1, these low permeability layers have a cumulative thickness of greater than 50 feet.

#### **Well Construction**

Well construction directly affects the ability of the wells to protect the aquifer from contaminants. The Scenic Drive Water Association drinking water system consists of two wells that extract ground water for domestic uses. Well system construction scores were moderate for wells #1 and #2, based on a 1996 sanitary survey showing compliance with well seal and flood protection standards and well logs showing casing and annular seals extending into a low permeability brown clay for well #2. However, though the wells met standards at the time of their installation, they are no longer in compliance with new construction standards. Current Idaho Department of Water Resources standards require that public water system wells be in conformance with the *Recommended Standards for Water Works* (1997). Specifically, the casing thickness is too thin.

The wells in the Scenic Drive Water Association system have a total depth of about 90 feet below ground surface. The lack of a blue clay layer in all the wells brings into question whether two distinct aquifers exist on the Emmett Bench. More than likely, this aquifer is semi-confined. The two wells are perforated below clay layers, but the lateral extent of the clay layers cannot be determined. The wells are cased throughout their depths, though neither have a gravel pack. The surface seals consist of puddling clay and bentonite.

#### **Potential Contaminant Source and Land Use**

Both wells rated moderate for inorganic chemicals (IOCs) (i.e. nitrates) and synthetic organic chemicals (SOCs) (i.e. pesticides). They both rated low for volatile organic chemicals (VOCs) (i.e. petroleum products) and microbial contaminants. Agricultural chemical sources and irrigated agricultural land use in the delineated source areas for both wells contributed the largest number of points to the contaminant inventory rating.

In July 1998, well #2 recorded a level of nitrate (9.31 mg/l) near the MCL of 10 mg/l. The delineations for both wells cross a Group 1 priority area for the organic pesticides Atrazine and Alachlor. The



Group 1 organic priority area was identified because at least 25% of the local area wells show levels of these pesticides greater than 1% of the primary standard or other health standard.

### Final Susceptibility Ranking

A detection above a drinking water standard MCL or a detection of total coliform bacteria or fecal coliform bacteria will automatically give a high susceptibility rating to a well despite the land use of the area because a pathway for contamination already exists. In this case, neither well rates high for any category, though water chemistry tests in well #2 show a dangerous nitrate level. In terms of total susceptibility rating, both wells rated moderate for all types of contaminants.

**Table 1. Summary of Scenic Drive Water Association Susceptibility Evaluation**

Well	Susceptibility Scores <sup>1</sup>									
	Hydrologic Sensitivity	Contaminant Inventory				System Construction	Final Susceptibility Ranking			
		IOC	VOC	SOC	Microbials		IOC	VOC	SOC	Microbials
#1	L	M	L	M	L	M	M	M	M	M
#2	M	M	L	M	L	M	M	M	M	M

<sup>1</sup>H = High Susceptibility, M = Moderate Susceptibility, L = Low Susceptibility

IOC = inorganic chemical, VOC = volatile organic chemical, SOC = synthetic organic chemical

### Susceptibility Summary

The Scenic Drive Water Association drinking water system is currently threatened by levels of nitrate contamination that approach the drinking water MCL for nitrate (10 mg/l) in well #2. This contamination is likely from the surrounding irrigated agricultural land use.

The wells in the Scenic Drive Water Association system take their water in whole or in large part from the shallow, unconfined to semi-confined alluvial (river deposited material) aquifer. The shallow aquifer has been demonstrated to be a distinct water-bearing unit in terms of water quality, water yield, and the sources of recharge (DEQ, 2000). Ground water in the shallow aquifer is recharged primarily from surface water irrigation, direct precipitation, and canal leakage.

## Section 4. Options for Source Water Protection

The susceptibility assessment should be used as a basis for determining appropriate new protection measures or re-evaluating existing protection efforts. No matter what the susceptibility ranking a source receives, protection is always important. Whether the source is currently located in a “pristine” area or an area with numerous industrial and/or agricultural land uses that require education and surveillance, the way to ensure good water quality in the future is to act now to protect valuable water supply resources.

An effective source water protection program is tailored to the particular local source water protection area. A community with a fully-developed source water protection program will incorporate many strategies. For Scenic Drive Water Association, source water protection activities should focus on implementation of practices aimed at reducing the leaching of agricultural chemicals from agricultural land within the delineated source water areas. Most of the delineated areas are outside the direct jurisdiction of Scenic Drive Water Association. Partnerships with state and local agricultural agencies and industry groups should be established and are critical to success. Due to the time involved with the movement of ground water, wellhead protection activities should be aimed at long-term management strategies even though these strategies may not yield results in the near term. Source water protection activities for agriculture should be coordinated with the Idaho State Department of Agriculture, the Soil Conservation Commission, the Gem Soil and Water Conservation District, and the Natural Resources Conservation Service.

Since the aquifers appear to have alternating layers of clays and sands, a deeper well, or a well perforated in a lower sand layer beneath more clay layers could offer better protection if the Scenic Drive Water Association has any future problems with nitrate. Any new PWS well should meet the *Recommended Standards for Water Works* (1997) as outlined in IDAPA 37.03.09 and IDAPA 58.01.08.550. Water should be taken from beneath the blue clay layer since the upper aquifer has a higher potential for becoming contaminated.

## **Assistance**

Public water suppliers and others may call the following DEQ offices with questions about this assessment and to request assistance with developing and implementing a local protection plan. In addition, draft protection plans may be submitted to the DEQ office for preliminary review and comments.

Boise Regional DEQ Office                      (208) 373-0550

State DEQ Office                                      (208) 373-0502

Website: <http://www2.state.id.us/deq>

Water suppliers serving fewer than 10,000 persons may contact John Bokor, Idaho Rural Water Association, at 1-800-962-3257 for assistance with wellhead protection strategies.

## POTENTIAL CONTAMINANT INVENTORY

### LIST OF ACRONYMS AND DEFINITIONS

**AST (Aboveground Storage Tanks)** – Sites with aboveground storage tanks.

**Business Mailing List** – This list contains potential contaminant sites identified through a yellow pages database search of standard industry codes (SIC).

**CERCLIS** – This includes sites considered for listing under the **Comprehensive Environmental Response Compensation and Liability Act (CERCLA)**. CERCLA, more commonly known as ASuperfund, is designed to clean up hazardous waste sites that are on the national priority list (NPL).

**Cyanide Site** – DEQ permitted and known historical sites/facilities using cyanide.

**Dairy** – Sites included in the primary contaminant source inventory represent those facilities regulated by Idaho State Department of Agriculture (ISDA) and may range from a few head to several thousand head of milking cows.

**Deep Injection Well** – Injection wells regulated under the Idaho Department of Water Resources generally for the disposal of stormwater runoff or agricultural field drainage.

**Enhanced Inventory** – Enhanced inventory locations are potential contaminant source sites added by the water system. These can include new sites not captured during the primary contaminant inventory, or corrected locations for sites not properly located during the primary contaminant inventory. Enhanced inventory sites can also include miscellaneous sites added by the Idaho Department of Environmental Quality (DEQ) during the primary contaminant inventory.

**Floodplain** – This is a coverage of the 100-year floodplains.

**Group 1 Sites** – These are sites that show elevated levels of contaminants and are not within the priority one areas.

**Inorganic Priority Area** – Priority one areas where greater than 25% of the wells/springs show constituents higher than primary standards or other health standards.

**Landfill** – Areas of open and closed municipal and non-municipal landfills.

**LUST (Leaking Underground Storage Tank)** – Potential contaminant source sites associated with leaking underground storage tanks as regulated under RCRA.

**Mines and Quarries** – Mines and quarries permitted through the Idaho Department of Lands.)

**Nitrate Priority Area** – Area where greater than 25% of wells/springs show nitrate values above 5mg/l.

**NPDES (National Pollutant Discharge Elimination System)** – Sites with NPDES permits. The Clean Water Act requires that any discharge of a pollutant to waters of the United States from a point source must be authorized by an NPDES permit.

**Organic Priority Areas** – These are any areas where greater than 25 % of wells/springs show levels greater than 1% of the primary standard or other health standards.

**Recharge Point** – This includes active, proposed, and possible recharge sites on the Snake River Plain.

**RICRIS** – Site regulated under **Resource Conservation Recovery Act (RCRA)**. RCRA is commonly associated with the cradle to grave management approach for generation, storage, and disposal of hazardous wastes.

**SARA Tier II (Superfund Amendments and Reauthorization Act Tier II Facilities)** – These sites store certain types and amounts of hazardous materials and must be identified under the Community Right to Know Act.

**Toxic Release Inventory (TRI)** – The toxic release inventory list was developed as part of the Emergency Planning and Community Right to Know (Community Right to Know) Act passed in 1986. The Community Right to Know Act requires the reporting of any release of a chemical found on the TRI list.

**UST (Underground Storage Tank)** – Potential contaminant source sites associated with underground storage tanks regulated as regulated under RCRA.

**Wastewater Land Applications Sites** – These are areas where the land application of municipal or industrial wastewater is permitted by DEQ.

**Wellheads** – These are drinking water well locations regulated under the Safe Drinking Water Act. They are not treated as potential contaminant sources.

**NOTE:** Many of the potential contaminant sources were located using a geocoding program where mailing addresses are used to locate a facility. Field verification of potential contaminant sources is an important element of an enhanced inventory.

Where possible, a list of potential contaminant sites unable to be located with geocoding will be provided to water systems to determine if the potential contaminant sources are located within the source water assessment area.

## References Cited

Great Lakes-Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers, 1997. "Recommended Standards for Water Works."

Idaho State Department of Agriculture, 1998. Unpublished Data.

Idaho Division of Environmental Quality, 1994. Ground Water and Soils Reconnaissance of the Lower Payette Area, Payette County, Idaho. Ground Water Quality Technical Report No. 5. Idaho Division of Environmental Quality. December 1994.

Idaho Division of Environmental Quality, 1996. Lower Payette River Agriculture Irrigation Water Return Study and Ground Water Evaluation, Payette County, Idaho. Water Quality Status Report No. 115.

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Idaho Department of Water Resources, 1993. Administrative Rules of the Idaho Water Resource Board: Well Construction Standards Rules. IDAPA 37.03.09.

Natural Resource Conservation Service, 1991. Idaho Snake-Payette Rivers Hydrologic Unit Plan of Work. March 1991.

United States Geological Survey, 1986. Quality of Ground Water in the Payette River Basin, Idaho. United States Geological Survey. Water Resources Investigation Report 86-4013.

University of Idaho. 1986. Ground Water Resources in a Portion of Payette County, Idaho. Idaho Water Resources Research Institute. University of Idaho. Moscow, Idaho. April 1986.

## Attachment A

# Scenic Drive Water Association Susceptibility Analysis Worksheet

The final scores for the susceptibility analysis were determined using the following formulas:

- 1) VOC/SOC/IOC Final Score = Hydrologic Sensitivity + System Construction + (Potential Contaminant/Land Use x 0.2)
- 2) 2) Microbial Final Score = Hydrologic Sensitivity + System Construction + (Potential Contaminant/Land Use x 0.35)

Final Susceptibility Scoring:

0 - 5 Low Susceptibility

6 - 12 Moderate Susceptibility

≥ 13 High Susceptibility



## Ground Water Susceptibility Report

Public Water System Name :

SCENIC DRIVE WATER ASSN

Well# : WELL 1

Public Water System Number 3230023

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## 1. System Construction

SCORE

Drill Date	04/13/1971	
Driller Log Available	YES	
Sanitary Survey (if yes, indicate date of last survey)	YES	1996
Well meets IDWR construction standards	NO	1
Wellhead and surface seal maintained	YES	0
Casing and annular seal extend to low permeability unit	NO	2
Highest production 100 feet below static water level	NO	1
Well located outside the 100 year flood plain	YES	0

Total System Construction Score

4

## 2. Hydrologic Sensitivity

Soils are poorly to moderately drained	YES	0
Vadose zone composed of gravel, fractured rock or unknown	NO	0
Depth to first water > 300 feet	NO	1
Aquitard present with > 50 feet cumulative thickness	YES	0

Total Hydrologic Score

1

## 3. Potential Contaminant / Land Use - ZONE 1A

IOC Score	VOC Score	SOC Score	Microbial Score
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Land Use Zone 1A	IRRIGATED CROPLAND	2	2	2	2
Farm chemical use high	NO	0	0	0	
IOC, VOC, SOC, or Microbial sources in Zone 1A	NO	NO	NO	NO	NO
Total Potential Contaminant Source/Land Use Score - Zone 1A		2	2	2	2

## Potential Contaminant / Land Use - ZONE 1B

Contaminant sources present (Number of Sources)	NO	0	0	0	0
(Score = # Sources X 2 ) 8 Points Maximum		0	0	0	0
Sources of Class II or III leacheable contaminants or	YES	4	0	0	
4 Points Maximum		4	0	0	
Zone 1B contains or intercepts a Group 1 Area	YES	0	0	2	0
Land use Zone 1B Greater Than 50% Irrigated Agricultural Land		4	4	4	4
Total Potential Contaminant Source / Land Use Score - Zone 1B		8	4	6	4

## Potential Contaminant / Land Use - ZONE II

Contaminant Sources Present	NO	0	0	0	
Sources of Class II or III leacheable contaminants or	YES	1	0	0	
Land Use Zone II Greater Than 50% Irrigated Agricultural Land		2	2	2	
Potential Contaminant Source / Land Use Score - Zone II		3	2	2	0

## Potential Contaminant / Land Use - ZONE III

Contaminant Source Present	NO	0	0	0	
Sources of Class II or III leacheable contaminants or	YES	1	0	0	
Is there irrigated agricultural lands that occupy > 50% of	YES	1	1	1	

Total Potential Contaminant Source / Land Use Score - Zone III	2	1	1	0
Cumulative Potential Contaminant / Land Use Score	15	9	11	6
4. Final Susceptibility Source Score	8	7	7	7
5. Final Well Ranking	Moderate	Moderate	Moderate	Moderate

## 1. System Construction

## SCORE

Drill Date	01/29/1989	
Driller Log Available	YES	
Sanitary Survey (if yes, indicate date of last survey)	YES	1996
Well meets IDWR construction standards	NO	1
Wellhead and surface seal maintained	YES	0
Casing and annular seal extend to low permeability unit	YES	0
Highest production 100 feet below static water level	NO	1
Well located outside the 100 year flood plain	YES	0

Total System Construction Score 2

## 2. Hydrologic Sensitivity

Soils are poorly to moderately drained	YES	0
Vadose zone composed of gravel, fractured rock or unknown	NO	0
Depth to first water > 300 feet	NO	1
Aquitard present with > 50 feet cumulative thickness	NO	2

Total Hydrologic Score 3

## 3. Potential Contaminant / Land Use - ZONE 1A

IOC Score	VOC Score	SOC Score	Microbial Score
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Land Use Zone 1A	IRRIGATED CROPLAND	2	2	2	2
Farm chemical use high	NO	0	0	0	
IOC, VOC, SOC, or Microbial sources in Zone 1A	NO	NO	NO	NO	NO
Total Potential Contaminant Source/Land Use Score - Zone 1A		2	2	2	2

## Potential Contaminant / Land Use - ZONE 1B

Contaminant sources present (Number of Sources)	NO	0	0	0	0
(Score = # Sources X 2 ) 8 Points Maximum		0	0	0	0
Sources of Class II or III leacheable contaminants or	YES	4	0	0	
4 Points Maximum		4	0	0	
Zone 1B contains or intercepts a Group 1 Area	YES	0	0	2	0
Land use Zone 1B Greater Than 50% Irrigated Agricultural Land		4	4	4	4

Total Potential Contaminant Source / Land Use Score - Zone 1B 8 4 6 4

## Potential Contaminant / Land Use - ZONE II

Contaminant Sources Present	NO	0	0	0	
Sources of Class II or III leacheable contaminants or	YES	1	0	0	
Land Use Zone II Greater Than 50% Irrigated Agricultural Land		2	2	2	

Potential Contaminant Source / Land Use Score - Zone II 3 2 2 0

## Potential Contaminant / Land Use - ZONE III

Contaminant Source Present	NO	0	0	0	
Sources of Class II or III leacheable contaminants or	YES	1	0	0	
Is there irrigated agricultural lands that occupy > 50% of	YES	1	1	1	

Total Potential Contaminant Source / Land Use Score - Zone III 2 1 1 0

Cumulative Potential Contaminant / Land Use Score	15	9	11	6
4. Final Susceptibility Source Score	8	7	7	7
5. Final Well Ranking	Moderate	Moderate	Moderate	Moderate